



Arizona State Retirement System

Fiscal Year 2009 Market Environment,
Total Fund Review and Investment Outlook
August 21, 2009

Allan Martin, Managing Partner, NEPC

Gary R. Dokes, Chief Investment Officer



"Advancing Your Investments"



NEPC, LLC
One Main Street, Cambridge, MA 02142
Tel: 617-374-1300 Fax: 617-374-1313
www.nepc.com

CAMBRIDGE | CHARLOTTE | DETROIT
LAS VEGAS | SAN FRANCISCO
Registered Investment Advisors



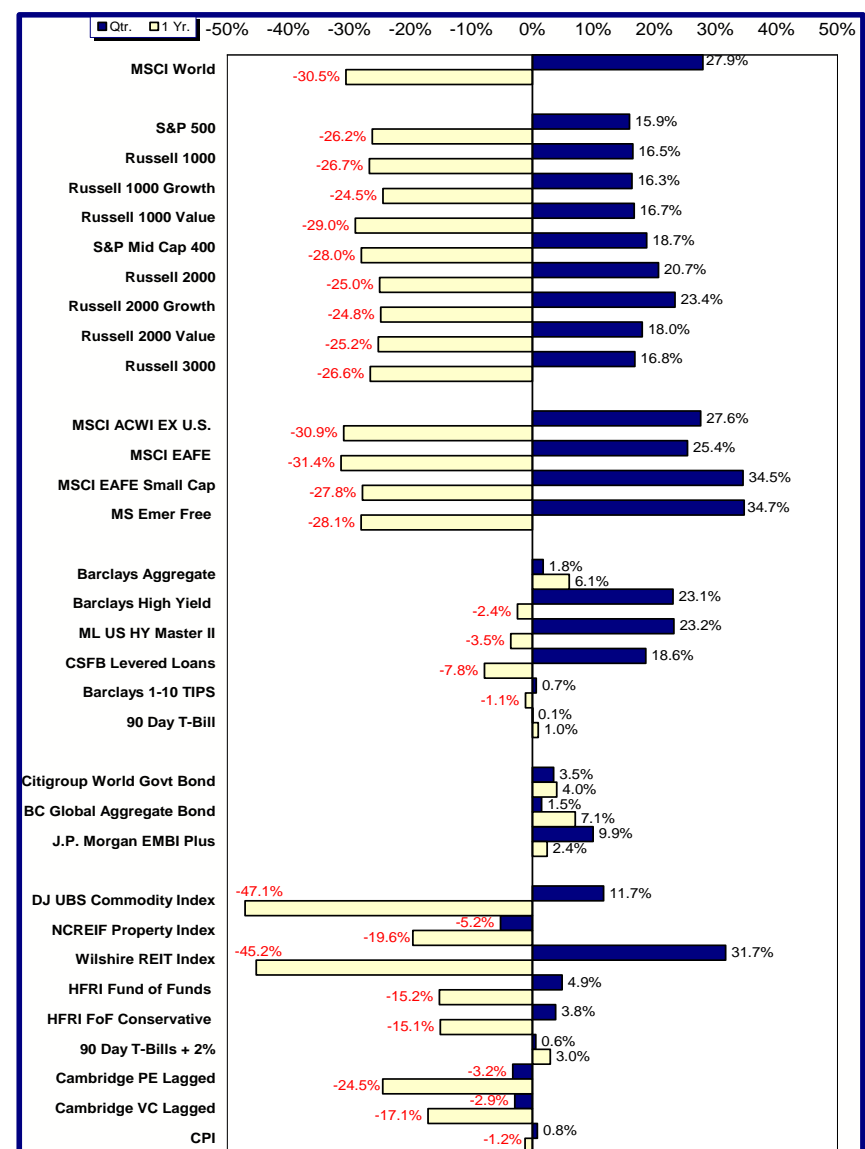
Market Environment



Market Environment – Overview (As of 6/30/2009)

REVISED

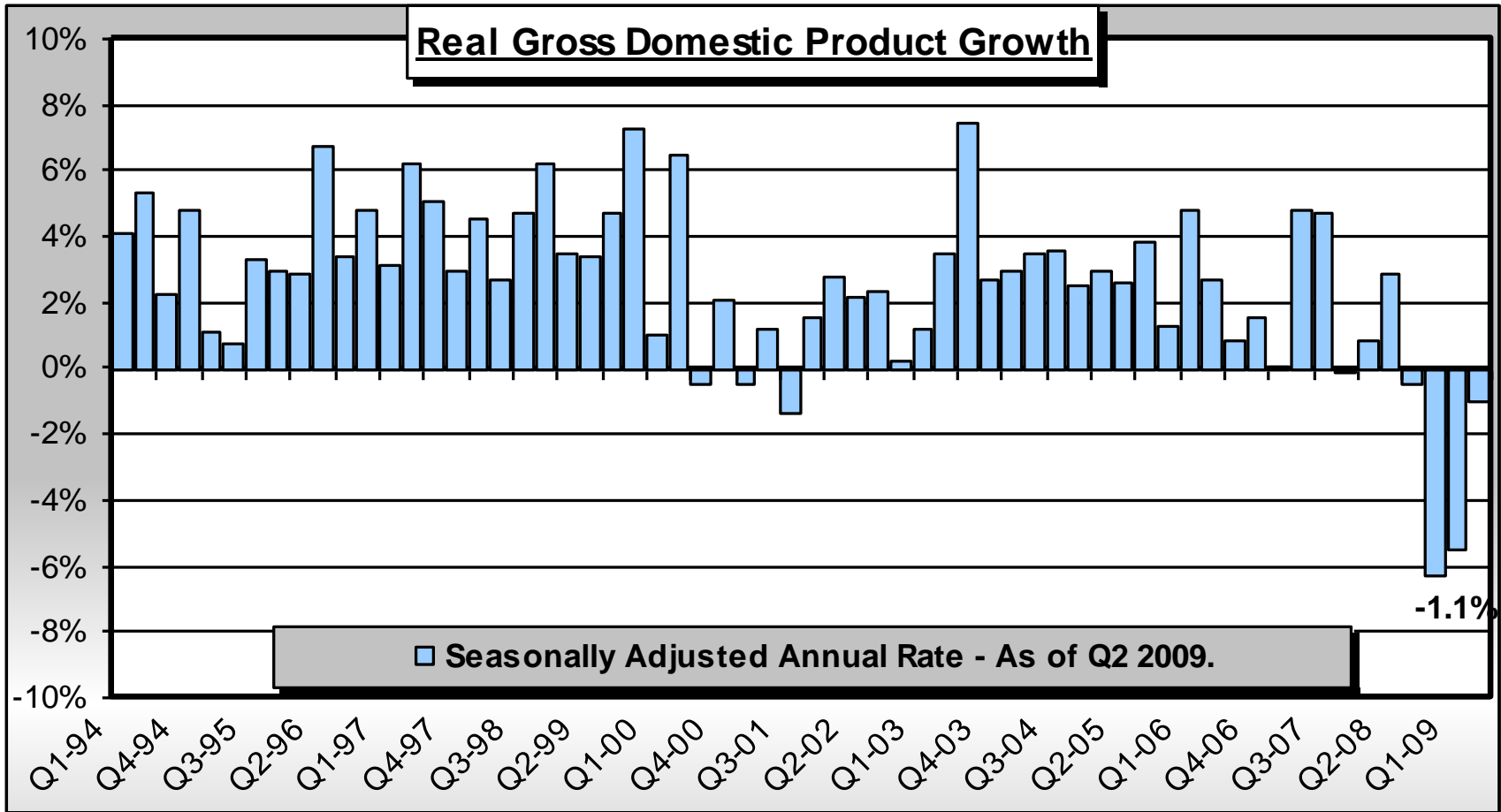
		Qtr.	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks							
MSCI World	World	27.9%	14.4%	-30.5%	-5.4%	4.9%	2.9%
Domestic Equity Benchmarks							
S&P 500	Large Core	15.9%	3.2%	-26.2%	-8.2%	-2.2%	-2.2%
Russell 1000	Large Core	16.5%	4.3%	-26.7%	-8.2%	-1.9%	-1.8%
Russell 1000 Growth	Large Growth	16.3%	11.5%	-24.5%	-5.4%	-1.8%	-4.2%
Russell 1000 Value	Large Value	16.7%	-2.9%	-29.0%	-11.1%	-2.1%	-0.2%
S&P Mid Cap 400	Mid Core	18.7%	8.5%	-28.0%	-7.5%	0.4%	4.6%
Russell 2000	Small Core	20.7%	2.6%	-25.0%	-9.9%	-1.7%	2.4%
Russell 2000 Growth	Small Growth	23.4%	11.4%	-24.8%	-7.8%	-1.3%	-0.9%
Russell 2000 Value	Small Value	18.0%	-5.2%	-25.2%	-12.1%	-2.3%	5.0%
Russell 3000	US Equity	16.8%	4.2%	-26.6%	-8.3%	-1.8%	-1.5%
International Equity Benchmarks							
MSCI ACWI EX U.S.	Int'l Developed	27.6%	13.9%	-30.9%	-5.8%	4.5%	2.5%
MSCI EAFE	Int'l Developed	25.4%	8.0%	-31.4%	-8.0%	2.3%	1.2%
MSCI EAFE Small Cap	Int'l Small Cap	34.5%	21.8%	-27.8%	-9.5%	3.0%	5.4%
MS Emer Free	Int'l Emerging	34.7%	36.0%	-28.1%	3.0%	14.7%	8.8%
Domestic Fixed Income Benchmarks							
Barclays Aggregate	Core Bonds	1.8%	1.9%	6.1%	6.4%	5.0%	6.0%
Barclays High Yield	High Yield	23.1%	30.4%	-2.4%	2.1%	4.3%	4.7%
ML US HY Master II	High Yield	23.2%	29.4%	-3.5%	1.8%	4.1%	4.4%
CSFB Levered Loans	Bank Loans	18.6%	27.1%	-7.8%	-1.4%	1.4%	--
Barclays 1-10 TIPS	Inflation	0.7%	6.2%	-1.1%	5.8%	4.9%	7.2%
90 Day T-Bill	Cash	0.1%	0.1%	1.0%	3.2%	3.2%	3.2%
Global Fixed Income Benchmarks							
Citigroup World Govt Bond	Global Bonds	3.5%	-1.5%	4.0%	7.8%	6.1%	6.5%
BC Global Aggregate Bond	Global Bonds	1.5%	1.5%	7.1%	5.6%	5.0%	5.5%
J.P. Morgan EMBI Plus	Em. Mkt. Bonds	9.9%	12.7%	2.4%	6.4%	9.0%	11.2%
Alternative Benchmarks							
DJ UBS Commodity Index	Commodities	11.7%	4.6%	-47.1%	-8.4%	-0.3%	7.2%
NCREIF Property Index	Real Estate	-5.2%	-12.1%	-19.6%	1.0%	7.6%	8.5%
Wilshire REIT Index	REITs	31.7%	-13.0%	-45.2%	-19.7%	-3.2%	5.5%
HFRI Fund of Funds	Hedge Funds	4.9%	5.2%	-15.2%	-1.1%	2.6%	4.8%
HFRI FoF Conservative	Hedge Funds	3.8%	4.6%	-15.1%	-1.9%	1.5%	4.1%
90 Day T-Bills + 2%	Cash + 2%	0.6%	1.1%	3.0%	5.3%	5.2%	5.3%
Cambridge PE Lagged	Private Equity	-3.2%	-18.7%	-24.5%	2.9%	12.1%	9.5%
Cambridge VC Lagged	Venture Capital	-2.9%	-15.0%	-17.1%	2.1%	6.5%	8.2%
CPI	Inflation	0.8%	1.4%	-1.2%	2.1%	2.6%	2.6%



Note: Cambridge Private Equity and Venture Capital Indices are lagged by one quarter.



Market Environment – U.S. Economy (As of 6/30/2009)

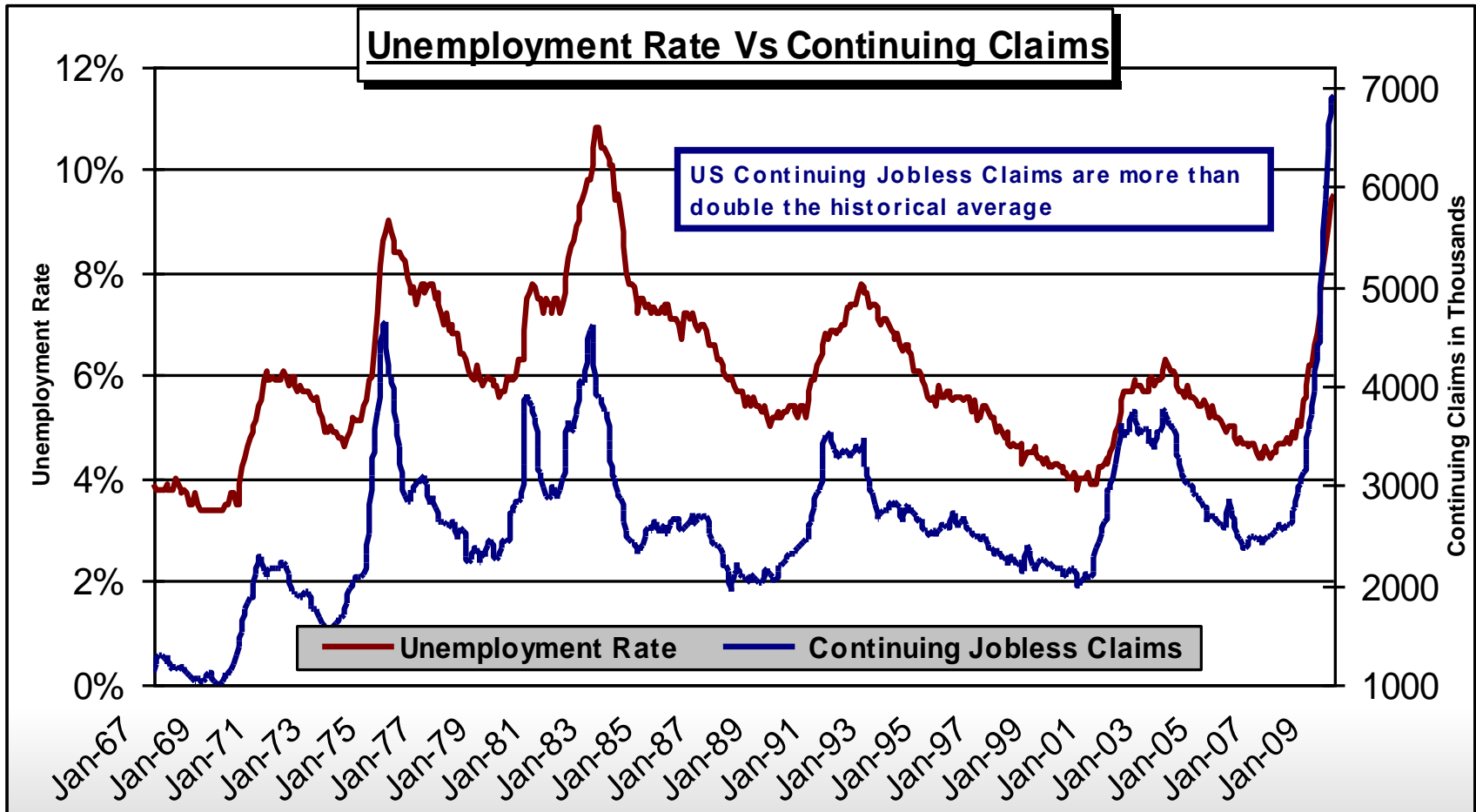


GDP contracted 1.1% in Q2...

Source: U.S. Department of Commerce: Bureau of Economic Analysis



Market Environment – U.S. Economy (As of 6/30/2009)

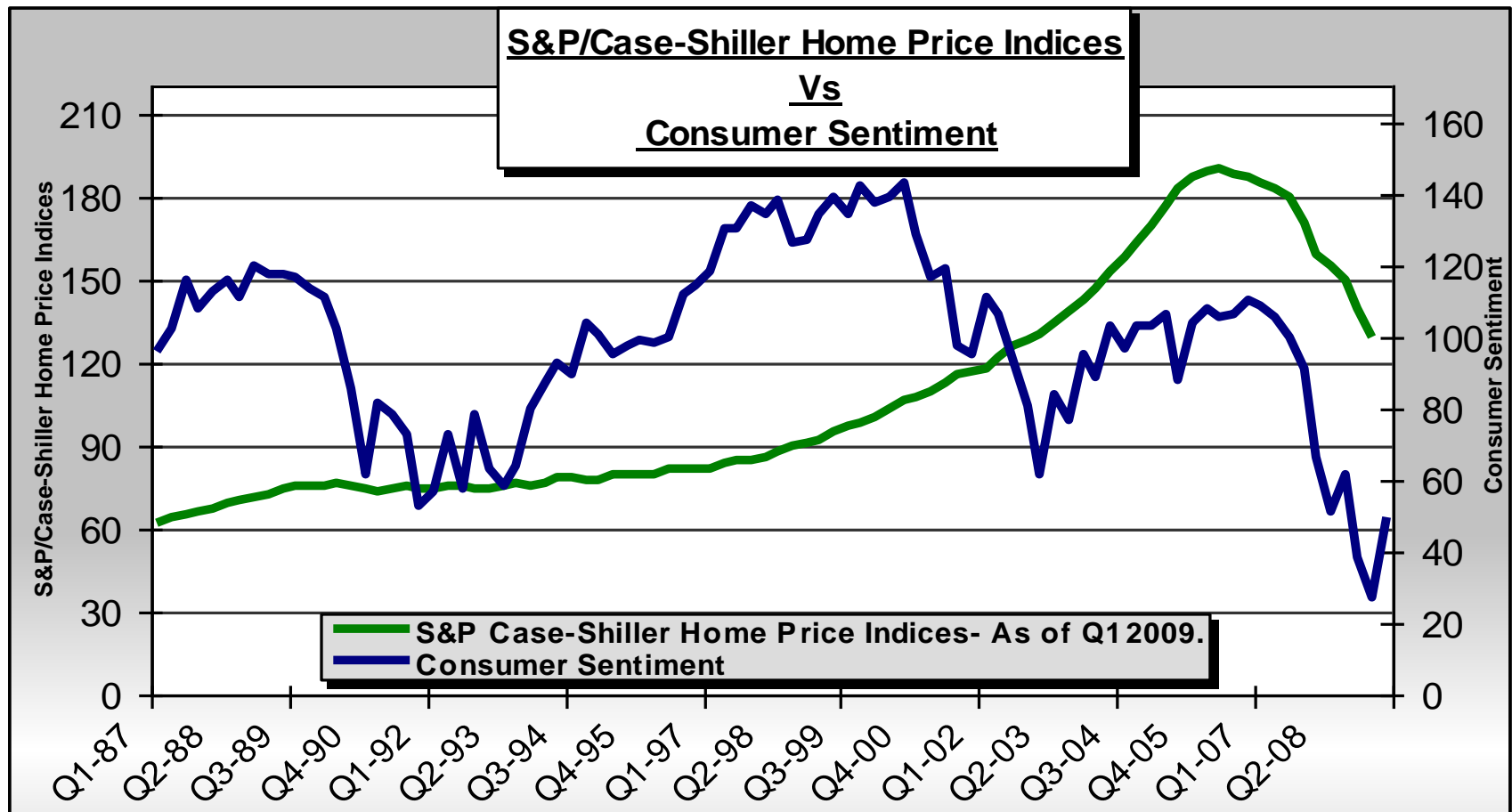


Unemployment rate hit 9.5% in Q2 as US Continuing Jobless Claims continue to rise...

Source: Department of Labor and St. Louis Federal Reserve



Market Environment – U.S. Economy (As of 6/30/2009)

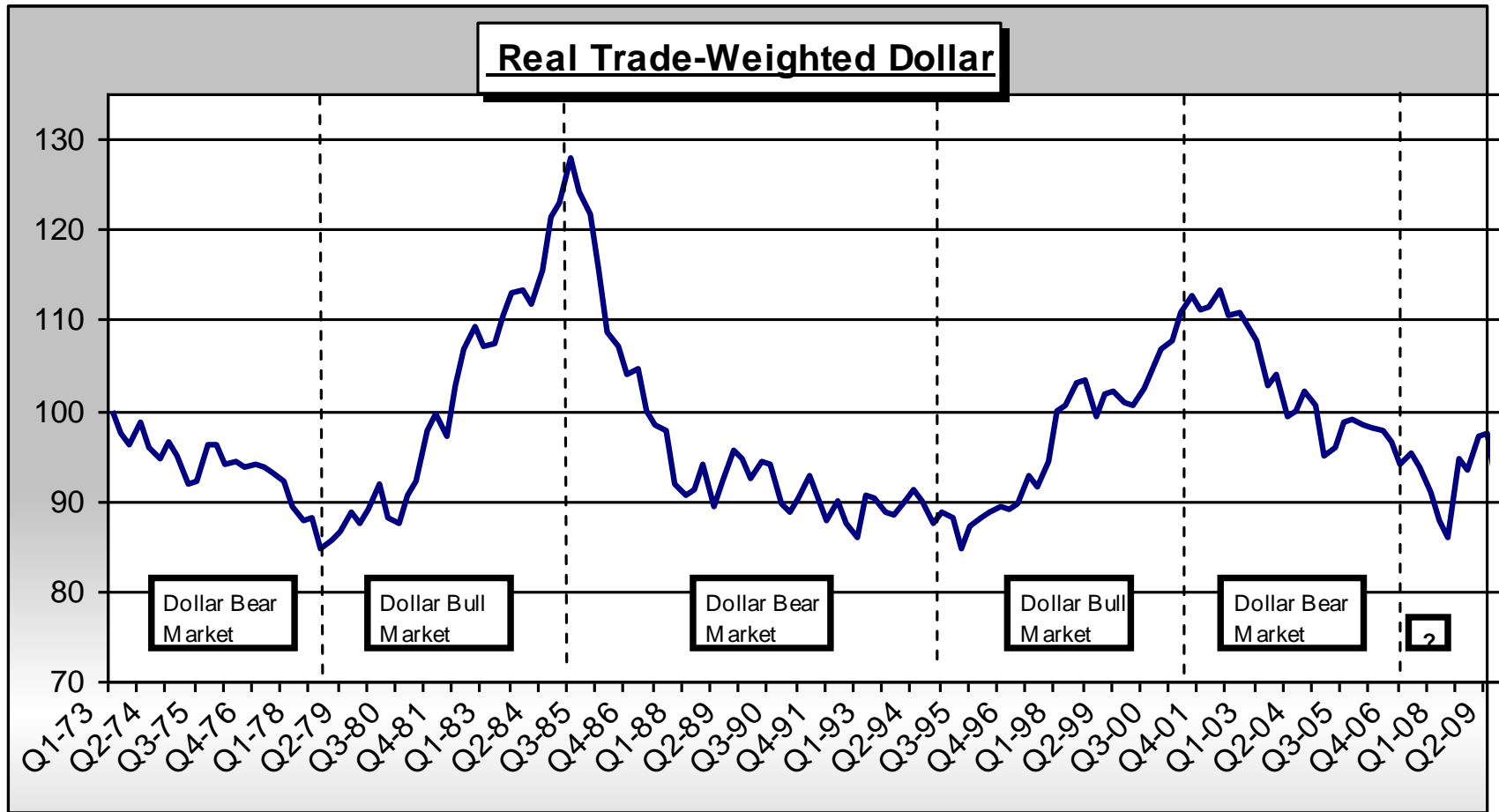


Housing prices have fallen 32% from their peak in Q2 of 2006; Consumer sentiment improved in Q2 of 2009 ...

Source: Standard & Poor's and Bloomberg



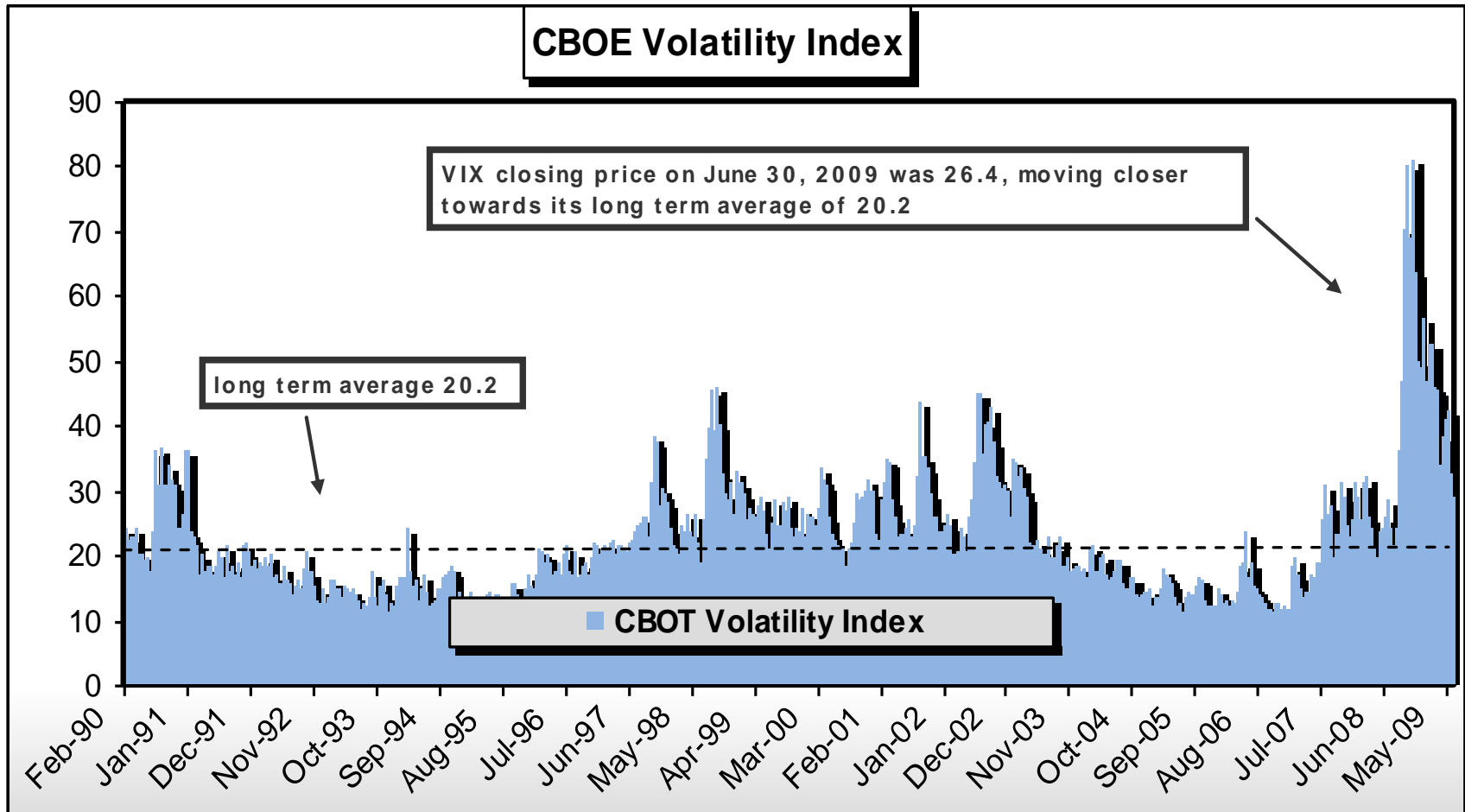
Market Environment – U.S. Economy (As of 6/30/2009)



The Dollar depreciated in Q2...

Source: Bloomberg and St. Louis Federal Reserve

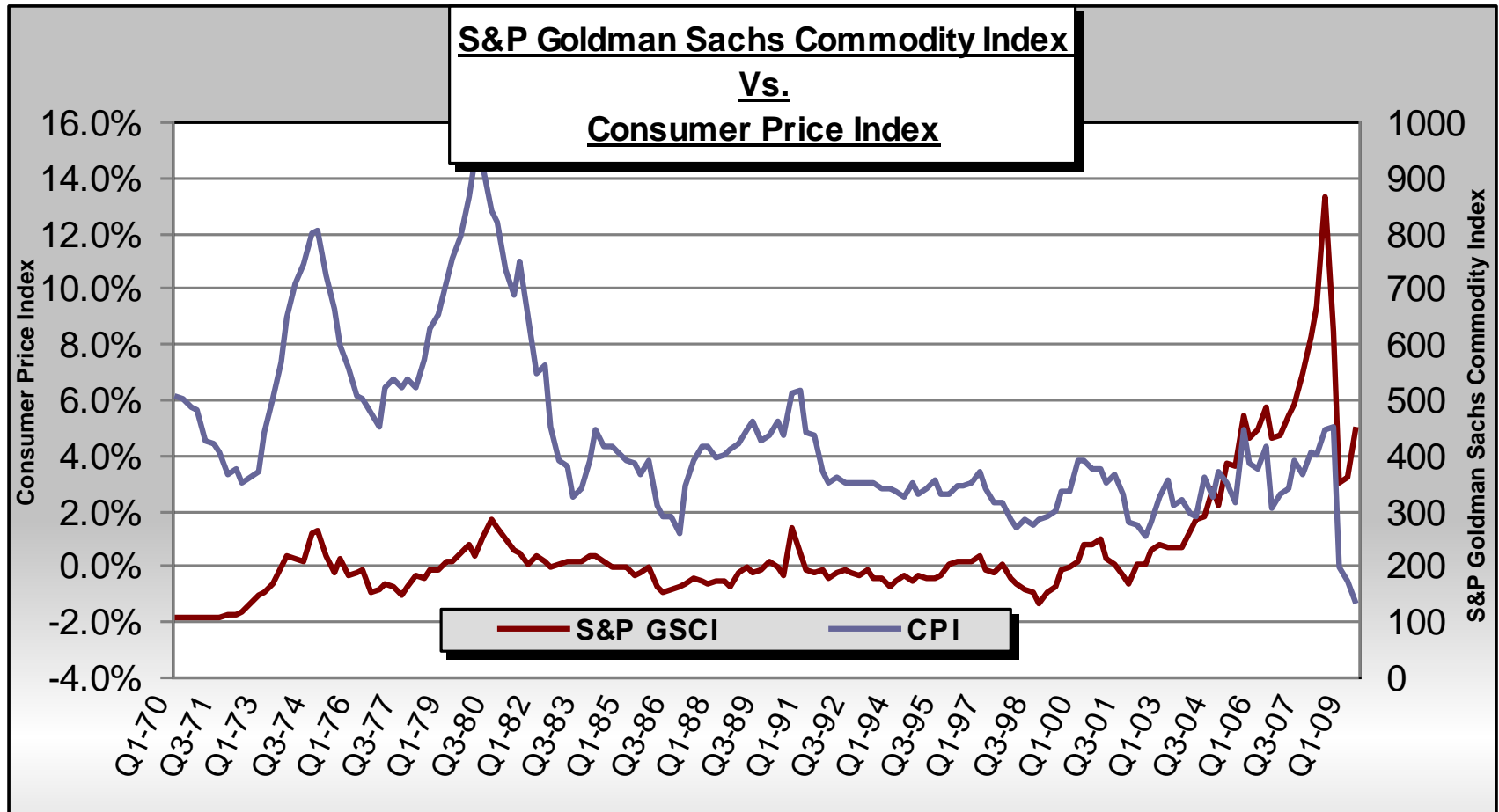
Market Environment – U.S. Economy (As of 6/30/2009)



The Volatility Index declined significantly in Q2 of 2009...



Market Environment – U.S. Economy (As of 6/30/2009)

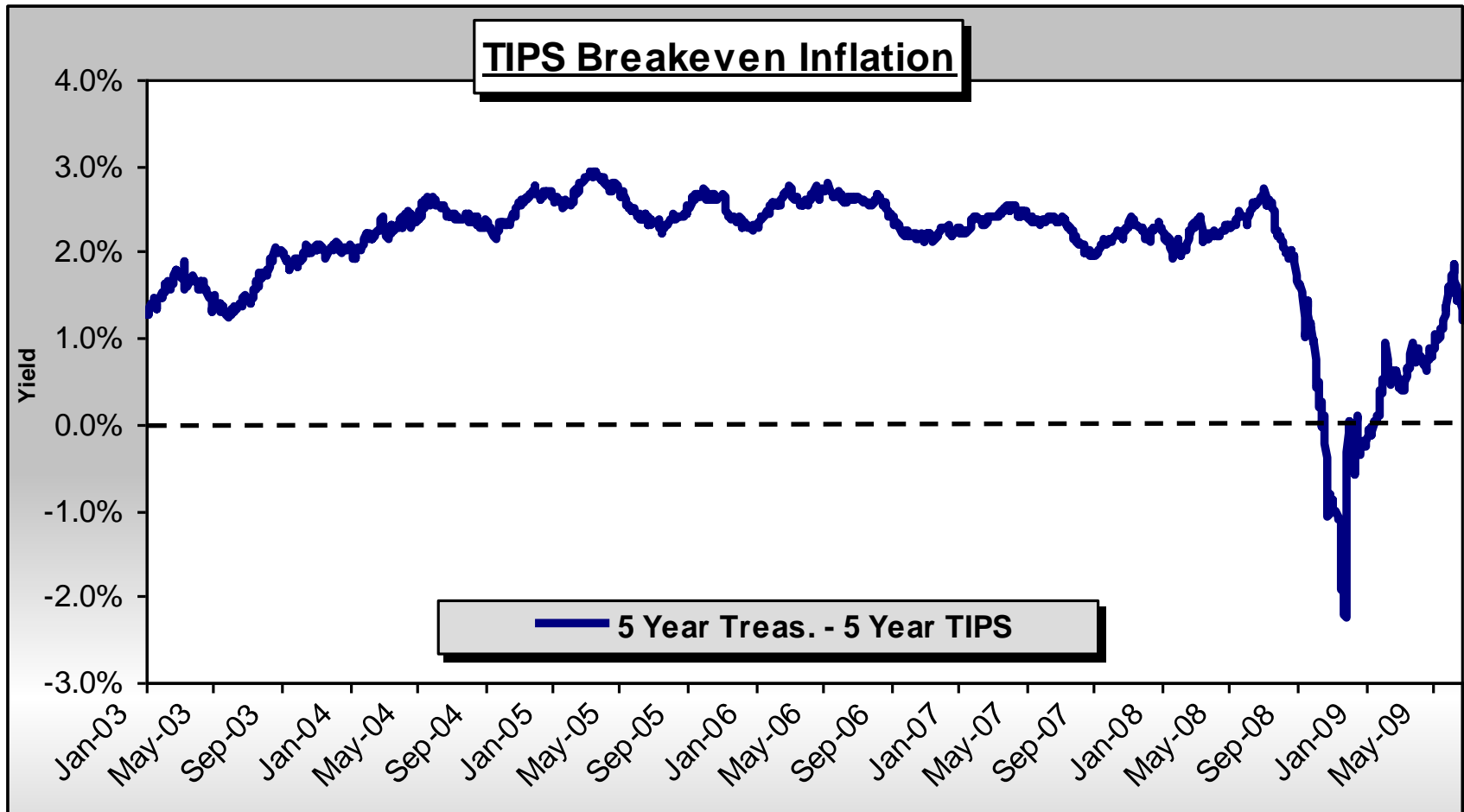


Year over year adjusted CPI declined in 2009 as S&P GSCI rebounded mainly driven by energy and industrial metals prices...

Source: Dow Jones & Company via St. Louis Federal Reserve



Market Environment – U.S. Economy (As of 6/30/2009)

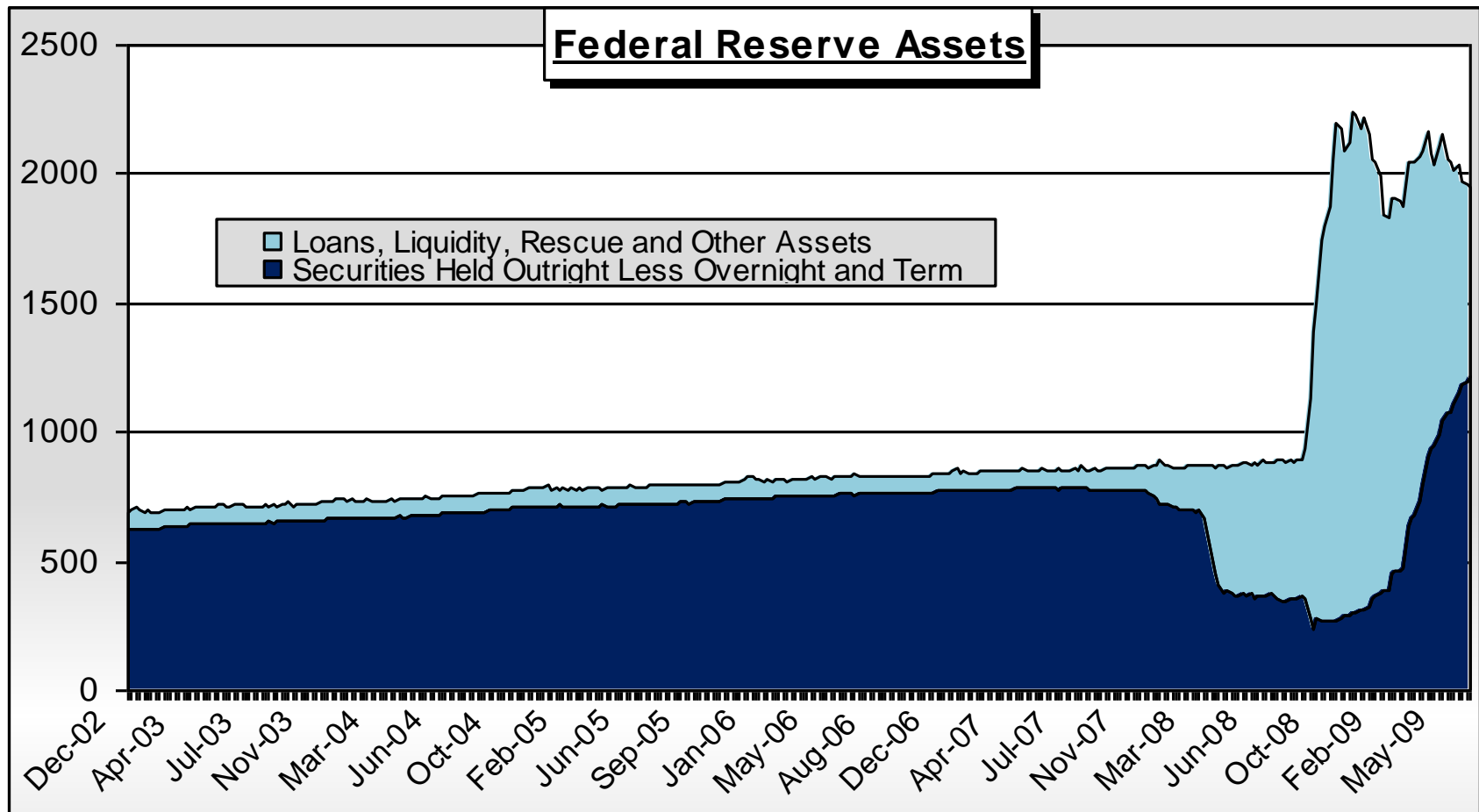


TIPS Breakeven Inflation is 1.34% after dipping below -2% in November...

Source: United States Federal Reserve



Market Environment – U.S. Economy (As of 6/30/2009)



Yet, Federal Reserve liabilities are still at unprecedented levels...

Source: United States Federal Reserve



Domestic & International Equities (As of 6/30/2009)

- Both Large Cap and Small Cap P/Es are below historical averages
- Earnings yield continues to exceed bond yield
- EPS growth contracted in 2008 and is expected to decline again in 2009
- S&P momentum shows a bullish signal
- S&P rebounded in Q2 led by Financials (36%) and Info. Technology (20%)
- Large Cap outperformed Small Cap by 2% year-to-date
- Growth stocks outperformed value stocks by 14% year-to-date
- International Equity outperformed Domestic Equity by 14% year-to-date



Fixed Income (As of 6/30/2009)

- Interest rates rose in the belly and long end of the yield curve
 - Short term rates still anchored near zero
 - Market is speculating rising rates, although the Fed has reiterated their commitment to keep Fed Funds low
- High Yield markets had their best quarter ever – up 23%
- Corporate credit was the best performing fixed income sector despite worsening fundamentals
 - 60 investment grade “fallen angels” year-to-date
- TALF has been a successful catalyst to restart stalled ABS markets
- Non-Agency MBS markets still adrift
 - Some improvement in liquidity in anticipation of PPIP



Private Markets – Earnings, Available Debt, Exits

- Private Equity

- Funds
 - Fundraising has slowed
 - Managers are focused on operations
 - Loan terms are being negotiated
 - Emphasis on reducing “Cash-burn”
- Exits
 - IPOs – U.S.
 - 2009Q1 & Q2
 - » 6 Private Equity backed IPOs
 - » Median Age of 11 years
 - 2000
 - » 286 Private Equity backed IPOs
 - » Median Age of 5 years
 - M & A (May 2008 – May 2009)
 - Global
 - » Volumes are down 30.7%
 - » Deal Values are down 39.3%
 - U.S.
 - » Volumes are down 22.4%
 - » Deal Values are down 57.6%
- Capital Calls and Distributions
 - Calls exceeded distributions
 - 2008 – (\$28.713) billion
 - 2007 – (\$1.637) billion
 - Distributions exceeded calls
 - 2006 – \$0.842 billion
 - 2005 – \$14.175 billion
 - 2004 – \$15.636 billion

- Real Estate

- Funds are conserving cash for both operations and debt workouts
 - Open end funds are not honoring redemption requests
 - Some open end funds are distributing current income
 - Both Closed end and Open end funds are working out loans either through loan modification or “giving back” the properties
- Debt
 - CMBS Delinquencies are increasing for all loans (30 Days+)
 - May 2009 – 2.72%
 - Dec 2008 – 1.18%
 - Dec 2007 – 0.40%
 - Dec 2006 – 0.36%
 - Dec 2005 – 0.84%
 - Dec 2004 – 1.35%
 - Moody’s Projects delinquencies to reach 6% by December 2009
- Exits – U.S.
 - Sales of Core-Real Estate (Sales ≥ \$5 million)
 - Current
 - » 2009H2 - \$15.7 billion
 - Historical
 - » 2008 - \$131.9 billion
 - » 2007 - \$421.0 billion
 - » 2006 - \$318.0 billion
 - » 2005 - \$275.6 billion
 - Cap Rates 2009Q2 – 7.35%, 2007Q4 – 6.48%



ASRS Total Fund Review



ASRS Investment Program Investment Goals

Macro

- Goal #1: Achieve a total fund rate of return equal to or greater than the actuarial assumed interest rate.
- Goal #2: Achieve a total fund rate of return equal to or greater than the asset allocation benchmark.
- Goal #3: Achieve a total fund rate of return equal to or greater than the amount projected in the most recent asset allocation study.
- Goal #4: Achieve asset class net rates of return equal to or greater than their respective broad asset class benchmarks.
- Goal #5: Achieve portfolio-level net rates of return equal to or greater than their respective portfolio benchmarks.
- Goal #6: Ensure sufficient monies are available to meet cash flow requirements.

Micro





Total Fund Performance (As of 6/30/2009)

Goal #1: Achieve a 10-year rolling annual rate of return equal to or greater than 8%

	10 Year Annualized Return
Total Fund	1.9%
Constant 8%	<u>8.0%</u>
Excess Return	-6.1%

Goal Met: No



Total Fund Performance (As of 6/30/2009)

Goal #2: Achieve annual and 3 year rolling annual rates of return equal to or greater than the return of the Asset Allocation Benchmark (SAA Benchmark)

	Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception (6/30/75)
Total Fund	12.6%	-18.1%	-3.8%	1.2%	1.9%	9.5%
SAA Benchmark*	13.9%	-18.4%	-3.0%	1.4%	1.3%	9.3%
Excess Return	-1.3%	0.3%	-0.8%	-0.2%	0.6%	0.2%

1 Year Goal Met: Yes

3 Year Goal Met: No

*Benchmark Policy History can be found on the last page of this presentation

Total Fund Attribution (As of 6/30/2009)

	1 Year	3 Years	5 Years	10 Years
Public Markets	1.1%	-0.4%	-0.1%	0.6%
Private Markets	-0.8	-0.4	-0.1	0.0
Total Management Effect	0.3	-0.8	-0.2	0.6
Public Markets Detail				
Allocation Effect:				
Strategic Allocation	0.0	-0.2	0.1	0.5
Tactical Allocation	0.0	-0.1	0.0	0.0
a. Total Allocation Effect	0.0	-0.3	0.1	0.5
Manager Selection Effect:				
Gross Selection	1.1	0.1	0.0	0.2
Investment Management Fees	-0.2	-0.2	-0.2	-0.1
Interaction Effect	0.2	0.0	-0.0	0.0
b. Net Selection Effect	1.1	-0.1	-0.2	0.1
Total Public Markets Management Effect [a+b]	1.1	-0.4	-0.1	0.6
Private Markets Detail *				
Real Estate	-0.8	-0.4	-0.1	0.0
Private Equity	0.0	0.0	0.0	0.0
Total Private Markets Management Effect	-0.8	-0.4	-0.1	0.0
Total Management Effect	0.3	-0.8	-0.2	0.6

Footnotes:

Strategic Allocation Effect is the contribution due to the asset classes that are not in the ASRS strategic asset allocation benchmark

Tactical Allocation Effect is the contribution due to over-/under-weights relative to strategic asset allocation policy weights and opportunistic fund weights

Manager Selection Effect represents contribution from 1) manager selection and 2) any active value/growth style tilt

* Private Market performance is reported versus the asset class benchmark.

No allocation effect will be reported for private markets until assets invested approach the target allocations



Total Fund Attribution Summary (As of 6/30/2009)

1 Year Excess Return: 0.3%

Selection Effect: 1.1%

International Equity outperformed due to Brandes and MFS (0.53%)

GTAA outperformed due to Bridgewater (0.37%)

Large Cap Domestic Equity outperformed due to INTECH and LSV (0.10%)

Mid Cap Domestic Equity outperformed due to Wellington and CRM (0.10%)

Tactical Allocation Effect: 0.0%

Private Market Management Effect: -0.8%

Investment in REITs, Write-downs, and the J-Curve Effect detracted from performance (-0.79%)

3 Years Excess Return: -0.8%

Selection Effect: -0.1%

International Equity underperformed due to Brandes, BGI and AXA (-0.10%)

Tactical Allocation Effect: -0.1%

Tactical overweight to equities (-0.1%)

Strategic Allocation Effect: -0.2%

International small cap strategic allocation (-0.22%)

Private Market Management Effect: -0.4%

5 Years Excess Return: -0.2%

Selection Effect: -0.2%

International Equity underperformed due to Brandes, BGI and AXA (-0.16%)

GTAA outperformed due to Bridgewater (0.15%)

Strategic Allocation Effect: 0.1%

Small/Mid-cap strategic allocation (0.06%)

Private Market Management Effect: -0.1%

10 Years Excess Return: 0.6%

Selection Effect: 0.1%

International Equity outperformed due to Brandes, MFS, Capital Guardian and BNY (0.18%)

Strategic Allocation Effect: 0.5%

Small/Mid-cap strategic allocation (0.45%)



Total Fund Performance (As of 6/30/2009)

Goal #3: Achieve a 5 year rolling annual rate of return equal to or greater than the projected return expectation in the ASRS Asset Allocation Study

	<u>5 Year Annualized Return</u>
Total Fund	1.2%
AA Expected Return	<u>7.8%</u>
Excess Return	-6.6%

Goal Met: No



ASRS Asset Class Performance vs. Benchmarks (As of 6/30/2009)

Goal #4: Achieve annual and 3 year rolling annual investment asset class net rates of return equal to or greater than their respective broad asset class benchmarks

	1 Year Return	3 Year Return
ASRS Domestic Equity	-25.3%	-7.8%
Domestic Benchmark*	-26.2%	-7.8%
Excess Return	0.9%	0.0%
ASRS International Equity	-28.3%	-6.5%
MSCI ACWI ex-U.S.	-30.5%	-5.4%
Excess Return	2.2%	-1.1%
ASRS Fixed Income	6.1%	6.3%
BC Aggregate	6.1%	6.4%
Excess Return	0.0%	-0.1%
ASRS GTAA	-15.7%	-2.9%
Custom Benchmark**	-18.4%	-3.8%
Excess Return	2.7%	0.9%
ASRS Real Estate	-36.2%	-10.5%
NPI + 1%	-13.7%	5.2%
Excess Return	-22.5%	-15.7%

Goal Met: Partially

* Domestic Equity Benchmark was S&P 500 through 12/31/2006 and 74% S&P 500, 13% S&P 400, 13% S&P 600 thereafter

** GTAA Custom Benchmark is 56% S&P 500; 28% BC Agg; 16% MSCI EAFE



ASRS Manager Performance vs. Benchmarks (As of 6/30/2009)

Goal #5: Achieve annual and 3-year rolling annual portfolio level net rates of return equal to or greater than their respective portfolio benchmarks

	1 Year	3 Years
Outperformers #	22	18
Underperformers #	29	9
Outperformers%	43%	67%

Goal Met: Partially



ASRS Cash Management

Goal #6: Ensure all pension benefits, health insurance, member refunds, administrative payments, and other requirements are made from available cash balances and without utilizing alternate liquidity options.

Month	Master Cash Balance pre-run	Net Pension Run	Master Cash Balance post-run
Jul-08	\$133,039,199	-\$132,639,255	\$17,744,751
Aug-08	\$157,988,835	-\$135,297,600	\$31,165,587
Sep-08	\$150,082,584	-\$138,335,098	\$15,366,866
Oct-08	\$89,485,932	-\$139,500,100	\$40,350,453
Nov-08	\$75,503,943	-\$140,663,511	\$23,007,643
Dec-08	\$200,842,128	\$141,654,779	\$52,292,787
Jan-09	\$183,373,818	-\$140,269,578	\$34,406,356
Feb-09	\$153,266,188	-\$141,848,592	\$13,281,836
Mar-09	\$171,026,399	-\$141,899,846	\$37,519,837
Apr-09	\$166,981,452	-\$141,910,214	\$30,480,184
May-09	\$153,741,143	-\$142,080,609	\$102,266,079
Jun-09	\$152,092,343	-\$142,386,547	\$38,765,983

**All Pension Obligations, Capital Calls and
Other Requirements Met with Available Cash**

Goal Met: Yes



Total Fund Performance Comparison* (As of 6/30/2009)

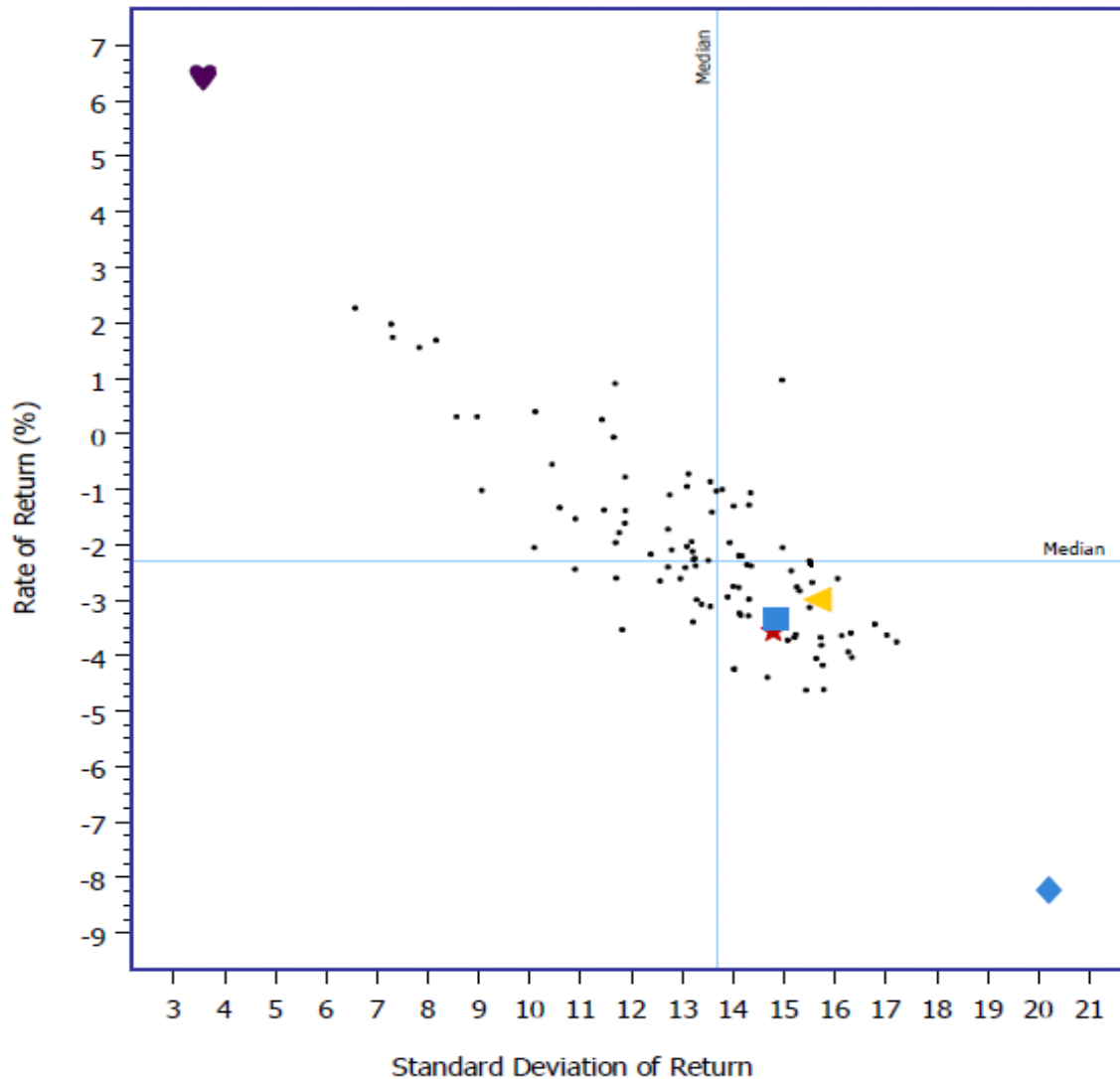
	1 Year	3 Years	5 Years	10 Years
<u>Independent Consultant's Cooperative</u>				
Master Trust Funds - Total Funds	68	76	75	83
Total Funds - Public	61	76	79	93
Total Funds over \$1 B - Public	42	70	86	90
Total Funds - Corporate	71	78	79	85
<u>Callan Associates Inc.</u>				
Master Trust Funds - Total Funds	51	70	75	85
Total Funds - Public	48	73	76	90
Total Funds over \$1 B - Public	33	78	86	91
Total Funds - Corporate	60	66	75	80

*The information contained herein is for comparison purposes only and is not a Total Fund performance benchmark. Peer universe comparisons are subject to several limitations, including: peer groups are not comprehensive, several funds are included in multiple peer groups, peer groups are constructed using gross of fees returns, and survivorship bias in that poorly performing funds may no longer continue to report results.

Note: Universes are constructed using gross of fee returns; therefore, the ASRS rank is based on gross of fee returns.



3 Yr. Return/Volatility vs. Public Funds (As of 6/30/2009)



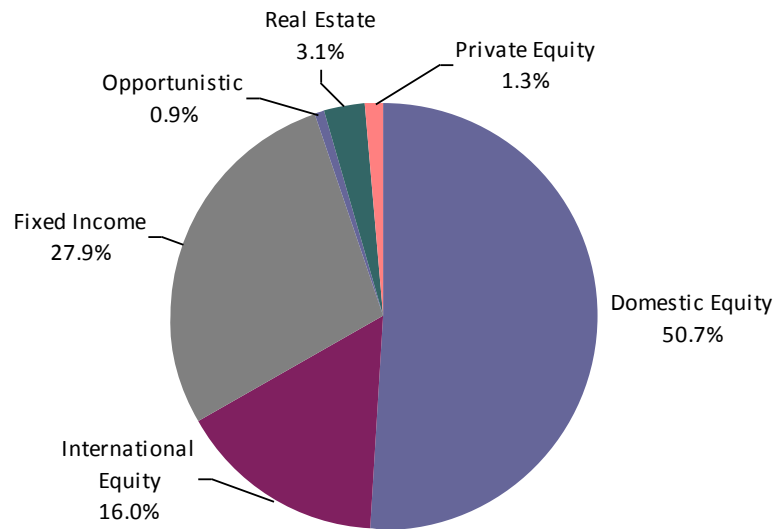
	Return		Standard Deviation		Sharpe Ratio
★ TOTAL FUND	-3.6	76	14.8	70	-0.4
■ ACTUAL BENCHMARK	-3.3	73	14.9	70	-0.4
▲ INTERIM BENCHMARK	-3.0	66	15.7	84	-0.3
◆ S&P 500	-8.2		20.2		-0.5
♥ BC AGGREGATE	6.4		3.6		0.9
Median	-2.3		13.7		-0.4

*Interim Benchmark (current): 36% S&P 500, 7% S&P 400, 7% S&P 600, 27% Barclays Capital Aggregate, 19% MSCI ACWI ex-U.S., and 4% NCREIF Property Index + 100 bps (lagged one quarter)
 Note: Interim Benchmark incorporates a proration of 2% real estate and 5% private equity
 Returns are Gross of Fees

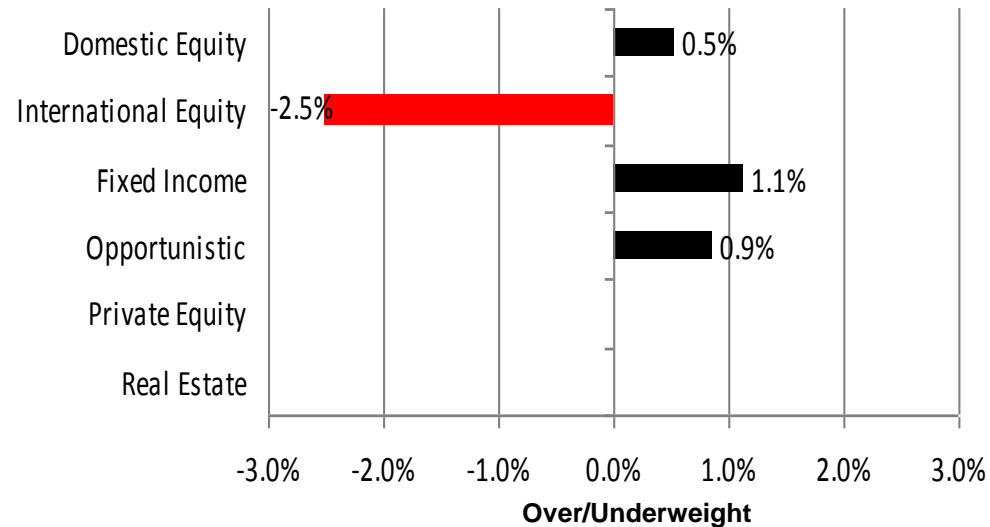


Total Fund Asset Allocation (As of 6/30/2009)

Actual Asset Allocation



Actual Asset Allocation vs. Policy Adjusted for Transition into Real Estate and Private Equity



Note: Real Estate and Private Equity market values are reported on a quarter-lag, and adjusted to include the current quarter's cash flows. Within the Policy Adjusted for Transition chart, Real Estate was prorated to domestic equity, international equity, and fixed income while Private Equity was prorated to domestic equity.



Investment Outlook



2009 NEPC Capital Market Observations & Expectations

- **Global recession persists into 2009**
 - Deleveraging process will continue
 - Recovery may not follow past patterns
 - Just like the recession, we may not recognize the upturn until some time has passed
 - There is a small but credible risk of a long-term deflationary spiral
- **Volatility will continue**
 - Markets need to assess the emerging financial capital and governance landscape
 - Low short term inflation expectations, with risk of deflation
 - Longer term risks of high inflation
 - Unprecedented global central banks' actions to generate liquidity
 - Regulation of markets will increase, bringing some benefits but more frictional costs
 - Long term weakening of US Dollar may be matched by other currencies
- **As markets stabilize, opportunities for attractive returns will be available**
 - Providers of liquidity and patient capital will be in the best position to capitalize
 - Fundamentals will matter once again
 - Future-looking risk premiums should be the highest in decades, but are unlikely to recover 2008 losses for many years



2009 NEPC Recommended General Actions for Clients

- **Position for opportunities but size risk positions appropriately**
 - High forward-looking risk premiums are attractive in most assets
 - Pricing of potential rebound in credit looks attractive relative to the upside in equity
 - Allocate to strategies most likely to capitalize on return to fundamentals – skilled traditional and alternative managers and credit opportunities
 - Consider strategies with lock-ups to protect capital flight
- **Consider broader risks of the total investment program**
 - Examine portfolio performance under different economic scenarios and tilt allocation to better protect capital in unfavorable environments
 - Where appropriate, allocate to interest rate and/or inflation sensitive securities to better match liabilities or spending needs
- **Prepare for continued market volatility**
 - Rebalance towards targets, but consider the tradeoffs of high transaction costs
 - Dollar-cost average to mitigate market timing risk
 - Consider strategies with broad diversification that can stabilize returns in uncertain environments – risk parity and global asset allocation
- **Assess liquidity needs and commit capital accordingly**
 - Balance long-term investment opportunities with near-term spending needs



2Q 2009 NEPC Observations and Opportunities

- Second quarter return are impressive across many risky asset classes
 - Equity markets had a very strong run
 - S&P 500 up 16%
 - Best quarter in over 20 years for developed international markets
 - Emerging markets returned over 30% for Q2
 - Credit markets rebounded significantly and have posted a very impressive 2009
 - Commodities rallied 19% for the quarter
 - *Most of run-up was over the course of April & May – June was flat as uncertainty returned*
- Optimism should be met with some skepticism
 - Fear has retreated from the markets
 - VIX is in the 20s (down from high of 80 last November)
 - Consumer sentiment and other leading indicators have ticked upwards
 - TALF is working, spreads are tightening, many are optimistic about PPIP
 - There are, however, lots of reasons to question the sustainability of recent rally
 - Unemployment likely to soon break through 10%
 - No obvious buyer of unprecedented government debt
 - US will issue over \$2T in debt compared to \$705B in 2008
 - While earnings have surprised on the upside, this is a result of cost cutting, not revenue growth
- Opportunities exist despite the uncertainty
 - Credit opps are evolving
 - From liquid strategies to TALF/PPIP, Mezzanine, Distressed, and Secondaries
 - Hedge Funds are starting to look like Hedge Funds again
 - Have provided positive returns in 2009 – well above equity markets year-to-date, with much less volatility
 - Inflation hedging assets make sense both strategically and tactically
 - Long-term diversification benefits, medium-term inflation hedging to offset tail-risk



What Happened and What IMD Did (2Q 2009)

What Happened

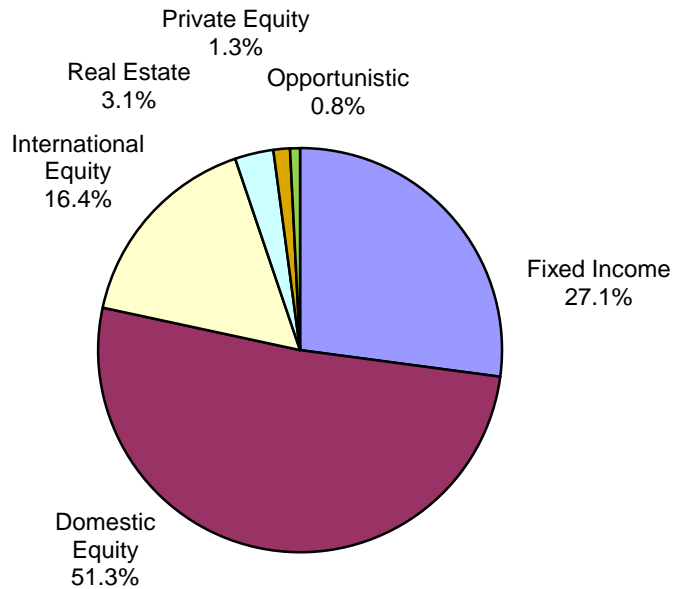
- Massive monetary stimulus lifted all asset classes
 - Liquidity in the fixed income markets continued to improve
 - Equities rallied significantly from their March lows
- Signs of severe recession abated
- The possibility of inflation received increased attention

IMD Rebalancing Activity

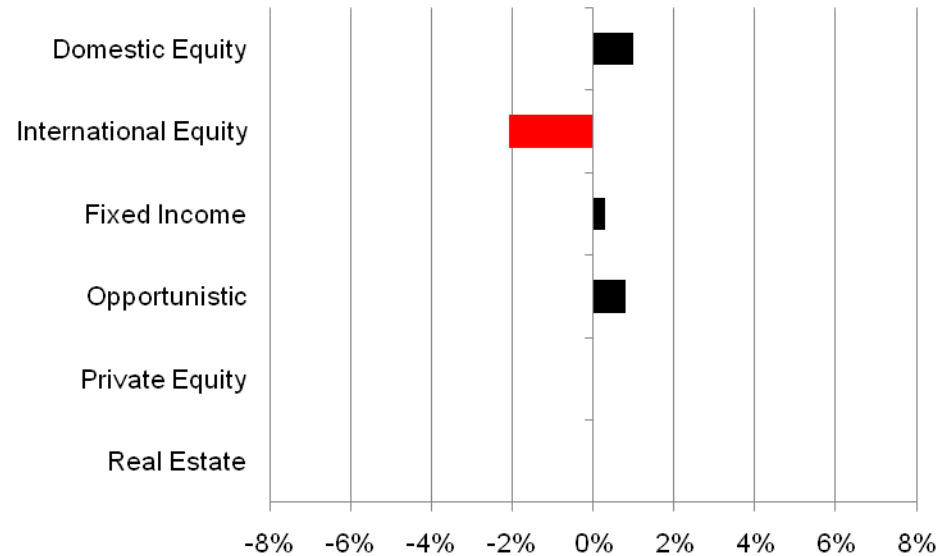
- Reduced International Equity exposure due to concerns of further weakness in Europe
 - Sold \$200 million from International Equity to buy Domestic Equity in April
- Reduced overweight to Fixed Income due to continued Fed intervention
 - Sold \$90 million from Fixed Income to buy Domestic Equity in May
- Invested available cash and reduced fixed income exposure, but maintain a modest overweight to fixed income relative to policy
 - Sold \$150 million from Fixed Income in June
 - Transferred \$50 million from cash in June
- Reduced international equity underweight on signs of global macroeconomic conditions stabilizing
 - Bought \$200 million of International Equity in June
- Maintaining a neutral bias in US equities

Where are We Now? (As of 08/06/2009)

Actual Portfolio



Actual Asset Allocation vs. Policy Adjusted for Transition into Real Estate and Private Equity*



• Real Estate and Private Equity actual weights are equal to policy weights during the implementation of these asset classes

** Over/Under- weights include both GTAA positions as well as IMD tactical considerations



IMD House Views, Focus and Action

The current market environment has created compelling opportunities, particularly in the Fixed Income and Opportunistic areas.

- **Fixed Income**
 - Although spreads have tightened significantly in 2009, IMD still finds opportunities in spread product which we believe should benefit from the eventual recovery of the US economy
 - Consistent with this belief, we are assessing strategic and tactical opportunities in high yield and bank loans
 - Believe active management in specific fixed income sectors can add value in the current market
- **Opportunistic**
 - There are numerous opportunities we believe could add value at the Total Fund level, as such significant resources are being allocated to this space.
 - Consider private equity/debt-related opportunities in niche markets extremely interesting
 - Invested in five funds focused on distressed credit (\$486 million or 2.3% of the Total Fund)



IMD House Views, Focus and Action (cont.)

- **US Equities**
 - Domestic equities have enjoyed a strong rally from the March lows. Would consider adding exposure on a major pullback, or scaling back some on a significant rally.
 - Over the long-run, IMD favors increased passive management, particularly in large cap
 - Given the Fund's performance is highly correlated with US Equities, we would favor reducing our strategic allocation to domestic equities.
- **International Equities**
 - Anticipate reducing underweight through further rebalancing.
 - Within International Equities, we favor a strategic allocation to emerging markets which we believe will outperform their developed counterparts in the long-run.
- **Private Equity**
 - PE is experiencing pricing adjustments, we remain committed to the program and believe it will add value in the long-run.
 - We find the most compelling opportunities in Mezzanine investing, Secondaries and Buyouts in mid/small/micro; researching potential value in Energy/Clean Tech and Infrastructure
 - Approximately \$1 billion in unfunded commitments anticipated to benefit from lower prices
- **Real Estate**
 - We expect the downturn in Real Estate to persist through 2009 and possibly into 2010
 - Though some Real Estate opportunities exist, we advocate patience in investing as real estate property values continue to adjust
 - Anticipate unfunded commitments (approximately 1/3 of ASRS RE target policy) will positively contribute to performance of the program over the next 7-10 years



Appendix



ASRS Total Fund Benchmark History

Policy History:

- 7/1/75 – 12/31/79 – 40% S&P 500/60% Barclays Capital Aggregate
- 1/1/80 – 12/31/83 – 50% S&P 500/50% Barclays Capital Aggregate
- 1/1/84 – 12/31/91 – 60% S&P 500/40% Barclays Capital Aggregate
- 1/1/92 – 12/31/94 – 50% S&P 500/40% Barclays Capital Aggregate/10% MSCI EAFE
- 1/1/95 – 6/30/97 – 45% S&P 500/40% Barclays Capital Aggregate/15% MSCI EAFE
- 7/1/97 – 12/31/99 – 50% S&P 500/35% Barclays Capital Aggregate/15% MSCI EAFE
- 1/1/00 – 9/30/03 – 53% S&P 500/30% Barclays Capital Aggregate/17% MSCI EAFE
- 10/1/03 – 12/31/06 – 53% S&P 500/26% Barclays Capital Aggregate/15% MSCI EAFE/ACWI ex-U.S.¹/6% NCREIF Property Index + 100 bps (lagged one quarter)
- 1/1/07 – present – 31% S&P 500/7% S&P 400/7% S&P 600/26% Barclays Capital Aggregate/18% MSCI ACWI ex-U.S./6% NCREIF Property Index + 100 bps (lagged one quarter)/5% Russell 3000 + 300 bps

*Interim Benchmark (current): 36% S&P 500, 7% S&P 400, 7% S&P 600, 27% Barclays Capital Aggregate, 19% MSCI ACWI ex-U.S., and 4% NCREIF Property Index + 100 bps (lagged one quarter)

Note: Interim Benchmark incorporates a proration of 2% real estate and 5% private equity

¹MSCI EAFE/ACWI ex-U.S. Benchmark is the MSCI EAFE prior to 10/1/2005 and the MSCI ACWI ex-U.S. thereafter